

AMENDMENTS TO THE CLAIMS

1-21. (Cancelled)

22. (Currently Amended) A device for use in controlling the quality of a perishable object, while progressing on its supply line, by monitoring the discoloration of a photochromic time-temperature indicator (TTI) associated with the object, the device comprising:

a light source for generating predetermined incident light, wherein the incident light is absorbed by the photochromic TTI, which TTI is attached to and calibrated to the perishable object, and wherein the photochromic TTI emits a light response,

a detector for detecting the light response emitted by the photochromic TTI to the incident light by measuring the degree of discoloration, and

a control unit for receiving data from the detector about the spectral properties of the incident light and the emitted light response,

wherein said control unit translates the data and generates a measured data corresponding to the condition of the photochromic TTI, and

wherein the measured data ~~enables a determination of~~ indicates the remaining shelf life of the perishable object to which the photochromic TTI is attached and calibrated in a quantitative or semi-quantitative manner.

23. (Previously Presented) The device of claim 22, wherein the light response is in the form of certain color saturation.

24. (Previously Presented) The device of Claim 22, wherein the light response includes reflections of the incident light.

25. (Previously Presented) The device of Claim 22, wherein the light response includes light transmitted through the photochromic TTI.

26. (Previously Presented) The device of Claim 22, wherein the incident light is in a visible spectral range.

27. (Previously Presented) The device of Claim 22, which comprises a sensing assembly comprising the light source generating the predetermined incident light, and the light detector.

28. (Previously Presented) The device of Claim 27, wherein the light source is a flash lamp.

29. (Cancelled)

30. (Previously Presented) The device of Claim 22, which comprises a communication utility for translating the measured data into an output signal in the form of at least one of electrical, optical, RF and acoustic signal, to be processed to determine the condition of the TTI, thereby enabling controlling the remaining shelf life of the TTI.

31. (Previously Presented) The device of Claim 22, which comprises a control unit connectable to a sensing assembly and preprogrammed to be responsive to the measured data for translating said data into a value corresponding to the measured condition of the TTI, said measured condition of the TTI being indicative of the remaining shelf life of the TTI and consequently of the object the TTI is associated with.

32. (Previously Presented) The device of Claim 30, which is an optical probe for determining the condition of a time-temperature indicator (TTI), the probe comprising: an optical sensing assembly for detecting a light response of the TTI to predetermined incident light and generating measured data representative thereof; and a communication utility for translating said data into an output signal in the form of at least one of electrical, optical, RF and acoustic signal, to be processed to determine the condition of the TTI, thereby enabling controlling remaining shelf life of the TTI.

33. (Previously Presented) The device according to Claim 22, wherein the photochromic TTI is a label, tag or packaging material, comprising a machine readable pattern having at least one feature of the pattern configured as a time-temperature indicator (TTI), said pattern being responsive to a predetermined stimulus in a time-temperature variable manner in accordance with time-temperature variations of the TTI.

34. (Previously Presented) The device according to Claim 33, wherein the readable data from said machine readable pattern varies with time and temperature in accordance with time and temperature variation of the TTI condition, said readable data being thereby indicative of remaining shelf life of the TTI.

35. (Previously Presented) The device according to Claim 22, wherein the photochromic TTI is an object carrying a machine readable pattern that includes at least one feature of the pattern configured as a time-temperature indicator (TTI), said pattern being responsive to a predetermined stimulus in a time-temperature variable manner in accordance with time-temperature variations of the TTI.

36. (Previously Presented) The device according to Claim 35, wherein readable data from said machine readable pattern varies with time and temperature in accordance with time and temperature variation of the TTI condition, said readable data being thereby indicative of remaining shelf life of the TTI.

37. (New) The device according to Claim 22, wherein the remaining shelf life of the perishable object appears on a display.

38. (New) A barcode reader comprising the device of Claim 22.